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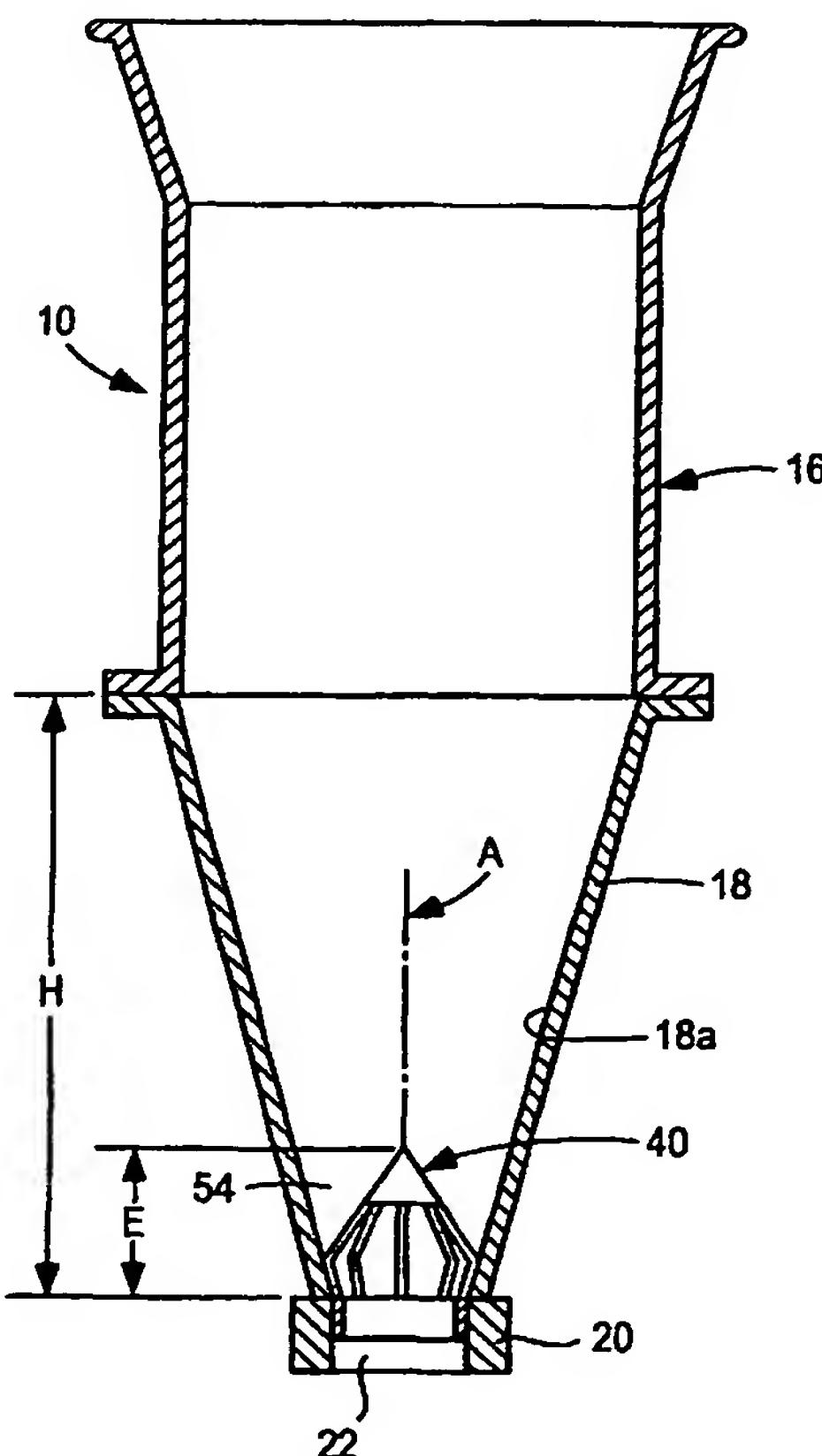
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[Continued on next page]

(54) Title: HOPPER WITH FLOW CONTROLLER/ENHANCER FOR CONTROLLING THE GRAVITATIONAL FLOW OF GRANULAR MATERIAL



(57) Abstract: A hopper assembly for feeding granular material, such as pharmaceutical powder, includes a hopper having an upper inlet and a lower outlet defining a substantially vertical center axis, and a flow controller/enhancer disposed in the hopper adjacent the outlet. The flow controller/enhancer includes a deflector element disposed in the hopper above the outlet. The deflector element is of generally conical shape with an apex thereof directed upwardly in substantial alignment with the vertical center axis. An outer peripheral edge of the deflector element is spaced inwardly from an inner surface of the hopper to define a space therebetween where gravitating granular material deflected outwardly by the deflector element flows downwardly past the deflector element toward the outlet.

WO 2005/059477 A3



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